

IN THE CLAIMS:

Please cancel claims 2-7, add claim 8 and amend claim 1 as follows:

TC

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1(Amended). A method for enhancing a response of bacteria selected from the group consisting of *Pseudomonas putida*, *Acinetobacter* and *Escherichia coli* to phenols and substituted phenols over the response exhibited by wild type bacteria of the same strain, said bacteria having a regulatory protein selected from the group consisting of DmpR, MopR, PhhR, PhIR, XylR, and TbuT with discrete functional domains for independent activities including a sensor domain that detects said phenols and substituted phenols through a direct physical interaction forming a protein-molecule complex which binds to a cognate promoter sequence and activates expression of genes encoding metabolic enzymes, a DNA-binding region, and a transcription activation region, said method comprising the steps of removing the sensor domain from the bacterial DNA encoding the regulatory protein, subjecting the removed sensor domain to mutagenic polymerase chain reaction, ligating the mutated sensor domain into the DNA encoding the regulatory protein, and testing the bacteria for enhanced response to said phenols and substituted phenols over the response thereto for wild type bacteria without altering other domains.

*a*²

8.(Newly Added) A method for enhancing a response of bacteria selected from the group consisting of *Pseudomonas putida*, *Acinetobacter* and *Escherichia coli* to phenols and substituted phenols over the response exhibited by wild type bacteria of the same strain, said bacteria having a regulatory protein selected from the group consisting of DmpR, MopR, PhhR, PhIR, XylR, and TbuT with discrete functional domains for independent activities including a sensor domain that detects said phenols and substituted phenols through a direct physical interaction forming a protein-molecule complex which binds to a cognate promoter sequence and activates expression of genes encoding metabolic enzymes, a DNA-binding region, and a transcription activation region, said method comprising the steps of removing the sensor domain from the bacterial DNA encoding the regulatory protein,